CLAIMS LISTING:

1. -72. (cancelled).

72. (original) The system of claim 71, wherein the transmitter is configured to modulate a phase of the light output by the optical source prior to modulating an amplitude of the light.

73. (original) A fiber optic network for carrying optical signals, comprising:

at least one optical fiber having embedded therein an optical signal comprising return-to-zero phase shift key (PSK) optical pulses.

74. (original) The fiber optic network of claim 73, wherein the optical signal further comprises a plurality of non-return-to-zero optical pulses.

75. (original) The method of claim 73, wherein the optical fiber has a zero dispersion wavelength of less than about 1500 nanometers.

76. (original) The method of claim 75, wherein the optical signal has a wavelength of between about 1500 nanometers and about 1625 nanometers.

77. (original) The method of claim 73, wherein a dispersion of the optical fiber is at least about 2 picoseconds per nanometer per kilometer at a wavelength of the optical signal.

78. (original) The method of claim 73, wherein a dispersion of the optical fiber is less than about 2 picoseconds per nanometer per kilometer at a wavelength of the optical signal.

79. (original) The method of claim 73, wherein the optical fiber is a non-zero-dispersion shifted fiber.

80. (original) The method of claim 73, wherein a dispersion of the optical fiber is at least about +15 picoseconds per nanometer per kilometer at a wavelength of the optical signal.

81. (original) The method of claim 73, wherein a dispersion of the optical fiber is less than about -15 picoseconds per nanometer per kilometer at a wavelength of the optical signal.

82. (original) The method of claim 73, wherein the optical fiber is single mode dispersion fiber having a zero dispersion wavelength of about 1310 nanometers.

83. (original) The method of claim 73, wherein an extinction ratio between adjacent pulses of the optical signal that have a relative phase difference of essentially zero is at least about 3 dB and less than about 8 dB.

84. (cancelled).

85. (original) A method for optically transmitting data, comprising:

preparing a plurality of phase shift keyed (PSK) optical data streams, each PSK optical data stream having a different wavelength and encoding data from at least one respective data source;

combining the PSK optical data streams to prepare a wavelength division multiplexed (WDM) optical signal;

modulating an amplitude of the WDM optical signal to prepare a phase shift keyed wavelength division multiplex (PSKWDM) optical signal comprising a plurality of return-to-zero optical pulses;

transmitting the PSKWDM optical signal along an optical fiber of an optical fiber network.

86. (original) The method of claim 85, wherein the PSKWDM optical signal further comprises a plurality of non-return to zero optical pulses.

87. (original) The method of claim 85, wherein each PSK optical data stream is a binary phase shift keyed BPSK optical data stream encoding data from a single respective data source.

88. (original) The method of claim 85, wherein each PSK optical data stream is a quaternary phase shift keyed optical data stream encoding data from a respective pair of data sources.

89. (original) The method of claim 85, wherein modulating an amplitude is performed after combining the PSK optical data streams.

90. (original) The method of claim 85, wherein preparing a plurality of PSK optical data streams comprises modulating a phase of light provided by a cw light source.

91. (original) The method of claim 85, wherein an extinction ratio between adjacent pulses of a respective one of the optical pulse strewn having a relative phase difference of essentially zero is at least about 3 dB and less than about 8 dB.

92. (original) The method of claim 91, wherein an extinction ratio between adjacent pulses having a relative phase difference of at least about $\pi/2$ is at least about 10 dB.

93. (original) The method of claim 92, wherein an extinction ratio between adjacent pulses of the optical pulse stream having a relative phase difference of essentially zero is at least about 5 dB and less than about 8 dB.

94. (original) The method of claim 93, wherein an extinction ratio between adjacent pulses having a relative phase difference of at least about $\pi/2$ is at least about 20 dB.

95. - 104. (cancelled).